November 8, 2001

Mr. Robert Jones
Behlen Manufacturing Company
2600 College Avenue
Goshen, In 46528

Re: Registered Construction and Operation Status,
CP 039-14784-00379

Dear Mr. Jones:

The application from Behlen Manufacturing Company, received on August 16, 2001, has been reviewed. Based on the data submitted and the provisions in Sections 1 and 2 of 326 IAC 2-1, it has been determined that the following agricultural products manufacturing operation, to be located at 2600 College Avenue, Goshen, Indiana, is classified as registered:

The source consists of the following emission units:

(a) One (1) galvanizing welding area including (1) welding station, with a maximum capacity of 1.3 pounds of ER70S-3 welding wire per hour.

(b) One (1) silver water based enamel touch-up process with a maximum capacity of 1 unit per hour, utilizing a brush application method and cleaners for wiping of parts.

(c) Fifty-one (51) natural gas fired space heaters with a combined heat input capacity of 2.55 MMBTU/hr.

(d) Pneumatic conveying of thermoplastic granules into storage silos with a maximum capacity of 0.75 tons of granules per hour.

(e) Four (4) rotomolding units with a combined heating input capacity of 18.5 MMBTU/hr.

(f) One (1) natural gas fired burn off cleaning oven with a maximum capacity of 4.8 MMBTU/hr and a maximum throughput of 500 pounds of powder and electrocoated steel racks.

(g) One (1) electrocoat epoxy dip tank capable of processing motor vehicle parts at a rate of 163 units per hour.

(h) One (1) electrocoat acrylic dip tank which is capable of coating 163 motor vehicle parts per hour.

(I) One (1) natural gas fired boiler with a heat input capacity of 8.37 million British thermal units per hour.

(j) One (1) natural gas fired bake oven in the electrocoat line with a heat input capacity of 2.5 million British thermal units per hour.

The following conditions shall be applicable:

Opacity

1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), the opacity shall meet the following, unless otherwise stated in this permit:

   (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

   (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

Preventive Maintenance Plan

2. Pursuant to rule 329 IAC 1-6-3 (Preventive Maintenance Plan), the Permittee shall prepare and maintain a preventive maintenance plan, including the following information:

   (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.

   (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.

   (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

   The preventive maintenance plan shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval.

Transfer of Permit

3. Pursuant to 326 IAC 2-1-6 (Transfer of Permit)

   (a) In the event ownership of this agricultural manufacturing operation is changed, the Permittee shall notify OAQ, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.

   (b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.

   (c) The OAQ shall reserve the right to issue a new permit.

Annual Emission Reporting

4. This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source emits more than 10 tons/year of oxides of nitrogen(NOx). Pursuant to this rule, the owner/operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by April 15 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year). The annual statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

326 IAC 6-3 (Process Operations)

5. Pursuant to this rule, the PM emissions from the pneumatic conveying of the thermoplastic granules shall not exceed the allowable particulate matter (PM) emissions rate of 3.4 pound per hour.

Open Burning

6. The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4 1 6.

This existing source was issued a exemption on January 19, 2001. This registration shall supersede the conditions of the exemption. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3)). The annual notice shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

WVH

cc: File - Elkhart County
Elkhart County Health Department
Air Compliance - Greg Wingstrom
Northern Regional Office
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowark
Administration and Development - Sara Cloe

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	Behlen Manufacturing Company
Source Location:	2600 College Avenue, Goshen, Indiana 46528
County:	Elkhart
SIC Code:	3523 and 3089
Operation Permit No.:	039-14784-00379
Permit Reviewer:	Walter V. Habeeb

The Office of Air Quality (OAQ) has reviewed an application from Behlen Manufacturing Company relating to the construction and operation of an agricultural products manufacturing operation, consisting of the following equipment:

Emission Units

The source consists of the following emission units:

(a) One (1) galvanizing welding area including (1) welding station, with a maximum capacity of 1.3 pounds of ER70S-3 welding wire per hour.

(b) One (1) silver water based enamel touch-up process with a maximum capacity of 1 unit per hour, utilizing a brush application method and cleaners for wiping of parts.

(c) Fifty-one (51) natural gas fired space heaters with a combined heat input capacity of 2.55 MMBTU/hr.

(d) Pneumatic conveying of thermoplastic granules into storage silos with a maximum capacity of 0.75 tons of granules per hour.

(e) Four (4) rotomolding units with a combined heating input capacity of 18.5 MMBTU/hr.

(f) One (1) natural gas fired burn off cleaning oven with a maximum capacity of 4.8 MMBTU/hr and a maximum throughput of 500 pounds of powder and electrocoated steel racks.

(g) One (1) electrocoat epoxy dip tank capable of processing motor vehicle parts at a rate of 163 units per hour.

(h) One (1) electrocoat acrylic dip tank which is capable of coating 163 motor vehicle parts per hour.

(I) One (1) natural gas fired boiler with a heat input capacity of 8.37 million British thermal units per hour.

(j) One (1) natural gas fired bake oven in the electrocoat line with a heat input capacity of 2.5 million British thermal units per hour.

Existing Approvals

On December 12, 1996 Behlem Manufacturing Company was issued a FESOP (F039-5594-00379). On January 5, 1998 after removing a enamel coating booth, a paint spray booth and a de-greasing process, a registration (CP 039-9206-00379) was issued that superseded the conditions of the FESOP. Then on January 19, 2001 after removing two (2) electrocoating booths, a touch-up booth, a stabilizing tank, a tank sealing process and a touch up process, an exemption (039-12894-00379) was issued.

Behlen Manufacturing Company now plans to add an Electrocoat Coating Line and miscellaneous facilities to the source located at 2600 College Avenue, Goshen, Indiana.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved and Behlen Manufacturing Company be issued a Registration Permit. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purpose of this review was received on August 16, 2001, with additional information received on August 30, 2001 and October 23, 2001.

Emission Calculations

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	4.48
PM-10	4.48
SO_2	0.09
VOC	4.116
CO	15.51
NO_x	22.03

HAP's	Potential To Emit (tons/year)
Manganese	1.20
Nickel	1.30
All Others	0.111
TOTAL	2.611

Potential to emit of NOx are less than twenty-five (25) tons per year, but greater than ten (10) tons per year. Therefore, pursuant to 326 IAC 2-5.5-1 a registration is required.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	maintenance
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as maintenance attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Elkhart County has been classified as attainment or unclassifiable for PM-10, CO, SO2 and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Potential to emit of any single hazardous air pollutant (HAP) is less than ten (10) tons per year and the potential to emit of any combination of the HAPs is less than twenty-five (25) tons per year. Therefore, pursuant to 326 IAC 2-1, a construction permit is not required.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of oxides of nitrogen (NOx*)* and it is located in Elkhart. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 Opacity

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-3-2 (Process Operations)

Pursuant to Exemption 039-12894-00379, issued on January 19, 2001, the particulate matter (PM) from the pneumatic conveying operation shall be limited to 3.4 pounds per hour when operating at a process rate of 0.75 tons per hour. The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

In this case P = 0.75 tons/hr, therefore:

$E = (4.10)\ (0.75)^{(0.67)}$
E = 3.4 lbs/hr

As 0.6 lbs/hr < 3.4 lbs/hr, this process complies with 326 IAC 6-3-2 without add-on controls.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Quality (OAQ) Construction Permit Application Form Y.

(a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.

(b) See attached calculations in Appendix A for detailed air toxic calculations.

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Conclusion

The operation of this agricultural manufacturing source will be subject to the conditions of the attached proposed Registration No. CP-039-14784-00379, Plt ID No. 039-00379. All other approvals for this source are superceded by this registration.

Appendix A: Emissions Calculations
Company Name: Behlen Manufacturing Company
Address City In Zip: 2600 College Avenue, Goshen, IN 46528
CP: 039-14784
Plt ID: 039-00379
Reviewer: Walter Habeeb

Potential HAP,s Emissions (tons/yr)

Facilities	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Lead	Cadmium	Chromium	Cobalt	Manganese	Nickel	Total HAP,s
New Facilities												
Burn-off Oven	4.42E-05	2.52E-05	1.58E-03	3.78E-02	7.15E-05	1.05E-05	2.31E-05	2.94E-05	0	7.99E-06	4.42E-05	
Electrocoat Tank	0	0	0	0	0	0	0	0	0	1.2	1.3	
Total	4.42E-05	2.52E-05	1.58E+03	3.78E-02	7.15E-05	1.05E-05	2.31E-05	2.94E-05	0	1.20E+00	1.30E+00	
Existing Facilities												
Space Heaters	8.28E-05	4.73E-05	2.96E-05	7.10E-02	1.34E-04	1.97E-05	4.34E-05	5.52E-05	0	1.50E-05	8.28E-05	
Welding Station	0	0	0	0	0	0	0	5.69E-05	5.69E-05	1.81E-05	5.69E-05	
Total	8.28E-05	4.73E-05	2.96E-05	7.10E-02	1.34E-04	1.97E-05	4.34E-05	1.12E-05	5.69E-05	1.12E-04	1.40E-04	
Source Total	1.27E-04	7.25E-05	1.61E-03	0.109	2.05E-04	3.02E-05	6.65E-05	1.42E-04	5.69E-05	1.20E+00	1.30E+00	2.611

Appendix A: Emissions Calculations
Company Name: Behlen Manufacturing Company
Address City In Zip: 2600 College Avenue, Goshen, IN 46528
CP: 039-14784
Plt ID: 039-00379
Reviewer: Walter Habeeb

Potential HAP,s Emissions (tons/yr)

Facilities	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Lead	Cadmium	Chromium	Cobalt	Manganese	Nickel	Total HAP,s
New Facilities												
Burn-off Oven	4.42E-05	2.52E-05	1.58E-03	3.78E-02	7.15E-05	1.05E-05	2.31E-05	2.94E-05	0	7.99E-06	4.42E-05	
Electrocoat Tank	0	0	0	0	0	0	0	0	0	1.2	1.3	
Total	4.42E-05	2.52E-05	1.58E+03	3.78E-02	7.15E-05	1.05E-05	2.31E-05	2.94E-05	0	1.20E+00	1.30E+00	
Existing Facilities												
Space Heaters	8.28E-05	4.73E-05	2.96E-05	7.10E-02	1.34E-04	1.97E-05	4.34E-05	5.52E-05	0	1.50E-05	8.28E-05	
Welding Station	0	0	0	0	0	0	0	5.69E-05	5.69E-05	1.81E-05	5.69E-05	
Total	8.28E-05	4.73E-05	2.96E-05	7.10E-02	1.34E-04	1.97E-05	4.34E-05	1.12E-05	5.69E-05	1.12E-04	1.40E-04	
Source Total	1.27E-04	7.25E-05	1.61E-03	0.109	2.05E-04	3.02E-05	6.65E-05	1.42E-04	5.69E-05	1.20E+00	1.30E+00	2.611